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Patent  
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01-11-07 AF/JW

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January 10, 2007

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Re: **Application No.:** 10/796,448  
**Confirmation No.:** 2402  
**Appellants:** Graef, et al.  
**Title:** Cash Dispensing Automated Banking Machine  
and Method  
**Docket No.:** D-1217 R2

Sir:

Please find enclosed the Appeal Brief of Appellants pursuant to 37 C.F.R. § 41.37 for filing in the above-referenced application.

If necessary, please charge a fee (\$500) for the Appeal Brief and any other fee due to Deposit Account 09-0428.

Very truly yours,

Ralph E. Jocke  
Reg. No. 31,029

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D-1217 R2

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of:	)	
<b>Graef, et al.</b>	)	
	)	
Application No.: <b>10/796,448</b>	)	Art Unit 3654
	)	
Confirmation No.: <b>2402</b>	)	
	)	
Filed: <b>March 9, 2004</b>	)	Patent Examiner
	)	Rakesh Kumar
Title: <b>Cash Dispensing Automated</b>	)	
<b>Banking Machine and Method</b>	)	

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

**BRIEF OF APPELLANTS PURSUANT TO 37 C.F.R. § 41.37**

Sir:

The Appellants hereby submit their Appeal Brief pursuant to 37 C.F.R. § 41.37 concerning the above-referenced Application. This Appeal Brief is in response to the final Office Action dated August 28, 2006.

(i)

**REAL PARTY IN INTEREST**

The Assignee of all right, title and interest to the above-referenced Application is Diebold, Incorporated, an Ohio corporation.

**(ii) RELATED APPEALS AND INTERFERENCES**

Appellants, Appellants' legal representative, and assignee believe that there are no other related appeals or interferences pertaining to this matter.



(iii)

## STATUS OF CLAIMS

Claims 2-39 are pending in the Application.

Claims rejected: 2-11, 15-17, 23-24, and 35-39

Claims allowed: none

Claims confirmed: none

Claims withdrawn: none

Claim objected to: 12-14, 18-22, and 25-34

Claims canceled: 1

Appellants appeal the rejections of claims 2-11, 15-17, 23-24, and 35-39, inclusive.

These rejections were in the Office Action ("Action") dated August 28, 2006, which was made Final.



(v) **SUMMARY OF CLAIMED SUBJECT MATTER**

*Concise explanations of exemplary forms of the claimed invention:*

For reasons of brevity, claim language may be referred to herein (and in Appellants' arguments) in a shortened version. For example, language such as "at least one" may be simply referred to as "a." Any generalized statement in this Appeal Brief is not to limit any of the mentioned claims in any manner. Please refer to the specific claim for the exact claim language.

With respect to independent claim 2

An exemplary form of the invention is directed to an apparatus. For example, note the description of Figures 18-21. The apparatus comprises a rotatable picking member (e.g., 212; specification page 28, line 13; Figure 18) that can work in conjunction with a stripping member (e.g., 246; page 30, line 9) to pick notes one at a time from a stack of notes (e.g., 264; page 33, lines 7-9) in an automated banking machine (e.g., ATM 10; page 11, lines 18-19; Figure 1). The picking member (212) includes a first disk portion (e.g., 218; page 28, lines 18-19) which includes a high friction arcuate segment (e.g., 228; page 29, lines 11-12). The high friction arcuate segment (228) is adapted to act on an end note (e.g., 266; page 33, lines 7-8) bounding the stack (264). The first disk portion (218) also includes an arcuate projecting portion (e.g., 258; Figure 19; page 32, lines 12-13) which includes a projecting surface (e.g., outer circumferential surface of projecting portion 258; page 34, lines 5-8 and 13-15) adjacent to and transversely disposed from the high friction arcuate segment (228). The projecting surface is adapted to act on a leading edge area of the end note (266) to prevent deformation (e.g., page 34, lines 8-15) of the leading edge area as the end note is acted upon by the high friction arcuate

segment (228). Further description related to the exemplary form of the invention (and operation thereof) may be found, for example, at pages 28-36.

It should also be understood that the arcuate projecting portion (258) (and its outer top circumferential surface, similar to outer surface 242) can also be seen in Figure 18 (although not numbered therein). The arcuate projecting portion (258) is located across from the carry away roll (252). The projecting (radially extending) portion (258) is also located at the lower right side of the recessed surface of the high friction arcuate segment (228) in Figure 18. The lower portion of this recessed surface is represented as portion (256) in Figure 19. The arcuate projecting portion (258) and the recessed surface (256) are part of the same disk portion (218). As can be seen in Figure 18 (and Figure 19), the arcuate projecting portion (shown as 258 in Figure 19) acts as a circumferential projection that extends radially outward further than the high friction surface (228, 256) adjacent thereto. For the benefit of the Board, a marked-up version of Figure 18 having the arcuate projecting portion (258) labeled therein can be found in the Evidence Appendix.

With respect to independent claim 3

Another exemplary form of the invention is directed to an apparatus. Support in the disclosure for like reference numerals has previously been provided. The apparatus includes a rotatable picking member (e.g., 212) adapted to work in conjunction with a stripping member (e.g., 246) to pick notes one at a time from a stack of notes (e.g., 264) in an automated banking machine (e.g., ATM 10). The picking member (212) includes a first disk portion (e.g., 218) which includes a high friction arcuate segment (e.g., 228) which is adapted to act on an end note (e.g., 266) bounding the stack (264) (e.g., page 33, lines 7-8).



The picking member also includes an arcuate projecting surface (e.g., outer circumferential surface of projecting portion 258; page 34, lines 5-8 and 13-15) adjacent to and transversely disposed from the high friction arcuate segment (e.g., 228). The arcuate projecting surface extends radially outward relative to the first disk portion (e.g., 218) beyond the high friction arcuate segment (e.g., 228). The arcuate projecting surface is adapted to act on a leading edge area of the end note (e.g., 266) to prevent deformation (e.g., page 34, lines 8-15) of the leading edge area as the end note (e.g., 266) is acted upon by the high friction arcuate segment (e.g., 228).

With respect to independent claim 35

Another exemplary form of the invention is directed to an apparatus. Support in the disclosure for like reference numerals has previously been provided.

The apparatus includes an automated banking machine picking disk (e.g., 218; Figure 18). The picking disk (e.g., 218) is adapted to work in conjunction with a stripping member to pick currency notes generally one at a time from a stack of currency notes in an automated banking machine (e.g., ATM 10). The picking disk (e.g., 218) is rotatable about an axis (e.g., 216; Figure 18). The picking disk (e.g., 218) includes an axially extending and circumferentially extending outer surface section that includes a high friction portion (e.g., 256) adjacent to a low friction portion (e.g., 258) in a direction parallel to the axis (e.g., 216). The high friction portion (e.g., 256) comprises a high friction arcuate surface (e.g., 228) that can act on an end note (e.g., 266; page 33, lines 7-8). The low friction portion (e.g., 258) comprises a low friction arcuate surface (e.g., outer circumferential surface of low friction portion 258). The low friction surface extends radially outward further than the high friction surface (e.g., 228, 256).

It should be understood that in an exemplary form of the claim 35 apparatus, the outer surface of portion (258) is of low friction, whereas the outer surface (e.g., 228) of portion (256) is of high friction.

With respect to independent claim 36

Another exemplary form of the invention is directed to an apparatus. Support in the disclosure for like reference numerals has previously been provided.

A picking member (e.g., 212, 218; Figures 18-19), which can pick currency notes from a stack in an automated banking machine (e.g., ATM 10), includes an arcuate high friction surface (e.g., 228). The high friction surface (e.g., 228) extends a distance on the picking member along a picking direction (arrow R; Figure 19) from a forward edge bounding the high friction surface (e.g., page 33, lines 21-22).

The picking member (e.g., 212, 218) also includes an arcuate projecting surface (e.g., 258; Figure 19) which is adjacent to and transversely disposed from the high friction surface (e.g., 228). The arcuate projecting surface (e.g., 258) extends adjacent the forward edge and extends along the picking direction only a portion (Figures 18-19) of the distance that the high friction surface (e.g., 228) extends on the picking member (e.g., page 32, lines 19-20). The arcuate projecting surface (e.g., 258) is operative to prevent deformation (e.g., page 34, lines 8-15) in the leading edge area of an end note (e.g., 266) bounding the stack (e.g., 264) as the leading edge area moves.

With respect to independent claim 38

Another exemplary form of the invention is directed to an apparatus. Support in the disclosure for like reference numerals has previously been provided. A picking member (e.g.,

212, 218; Figures 18-19), which can pick currency notes from a stack in an automated banking machine (e.g., ATM 10), includes a first disk portion (e.g., 218). The first disk portion (e.g., 218) includes a high friction arcuate segment (e.g., 256; Figure 19) that is adapted to act on an end note (e.g., 266) bounding the stack (e.g., 264) (e.g., page 33, lines 7-8; page 34, lines 5-8).

The picking member (e.g., 212; Figures 18-19) also includes an arcuate projecting surface (e.g., 258) adjacent to and transversely disposed from (e.g., Figure 19) the high friction arcuate segment (e.g., 256). The projecting surface (e.g., 258) extends radially outward beyond the high friction arcuate segment (e.g., 256). The projecting surface (e.g., 258) is adapted to act on a leading edge area of an end note (e.g., 266) as the end note is acted upon by the high friction arcuate segment (e.g., 256).

With respect to independent claim 39

Another exemplary form of the invention is directed to an apparatus. Support in the disclosure for like reference numerals has previously been provided.

The automated banking machine picking disk (e.g., 218; Figures 18-19) is rotatable about an axis (e.g., 216). The picking disk (e.g., 218) includes an axially extending and circumferentially extending outer surface section that includes a high friction portion (e.g., 228) adjacent to a low friction portion (e.g., 258) in a direction parallel to the axis (e.g., 216).

The high friction portion (e.g., 228) comprises a high friction arcuate surface that is adapted to act on an end note (e.g., 266) bounding a stack (e.g., 264) (e.g., page 33, lines 7-8).

The low friction portion (e.g., 258) comprises a low friction arcuate surface that extends circumferentially along only a portion of the high friction arcuate surface (e.g., 228) (Figures 18-19) (e.g., page 32, lines 19-20).

**(vi) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

The issues presented in this appeal are:

Whether claims 2-11, 15-17, 23-24, and 35-39 are unpatentable pursuant to 35 U.S.C. § 103(a) over Furuki et al. (US 6,000,689) in view of Geib, et al. (US 5,207,788) and further in view of Graef, et al. (US D444,803). The relied upon references are hereinafter respectively referred to as "Furuki," "Geib," and "Graef."

(vii)

## ARGUMENT

### The Applicable Legal Standards

Before a claim may be rejected on the basis of obviousness pursuant to 35 U.S.C. § 103, the Patent Office bears the burden of establishing that all the recited features of the claim are known in the prior art. This is known as *prima facie* obviousness. To establish *prima facie* obviousness, it must be shown that all the elements and relationships recited in the claim are known in the prior art. If the Office does not produce a *prima facie* case, then the Appellants are under no obligation to submit evidence of nonobviousness. MPEP § 2142.

The teaching, suggestion, or motivation to combine the features in prior art references must be clearly and particularly identified in such prior art to support a rejection on the basis of obviousness. It is not sufficient to offer a broad range of sources and make conclusory statements. *In re Dembiczak*, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999).

Even if all of the features recited in the claim are known in the prior art, it is still not proper to reject a claim on the basis of obviousness unless there is a specific teaching, suggestion, or motivation in the prior art to produce the claimed combination. *Panduit Corp. v. Denison Mfg. Co.*, 810 F.2d 1561, 1568, 1 USPQ2d 1593 (Fed. Cir. 1987). *In re Newell*, 891 F.2d 899, 901, 902, 13 USPQ2d 1248, 1250 (Fed. Cir. 1989).

Evidence of record must teach or suggest the recited features. An assertion of knowledge and common sense not based on any evidence in the record lacks substantial evidence support. *In re Zurko*, 258 F.3d 1379, 59 USPQ2d 1693 (Fed. Cir. 2001). Patentability determination must be based on evidence of record. *In re Lee*, 277 F.3d 1338, 61 USPQ2d 1430 (Fed. Cir. 2002).

It is respectfully submitted that the Action requiring appeal does not meet these burdens.

Again, for reasons of brevity, claim language may be referred to herein in a shortened version. For example, language such as "at least one" may be simply referred to as "a." Any generalized statement herein is not to limit any of the mentioned claims in any manner. Please refer to the specific claim for the exact claim language.

**The Claims Are Not Obvious Over  
Furuki in view of Geib and Graef**

Claims 2-11, 15-17, 23-24, and 35-39 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Furuki in view of Geib and further in view of Graef.

Appellants traverse the rejections on the grounds that Appellants' claims recite features and relationships which are neither disclosed nor suggested in the prior art, and because there is no teaching, suggestion, or motivation cited so as to produce Appellants' recited invention. Nor do the references teach or suggest the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed Cir. 1990). The features and relationships recited in Appellants' claims patentably distinguish over the applied references.

The rejections, which lack the necessary evidence and rationale, are based on knowledge gleaned only from Appellants' own novel disclosure. It follows that the rejections are based solely on hindsight reconstruction of Appellants' claimed invention, which is legally impermissible and does not constitute a valid basis for a finding of obviousness. *In re Fritch*, 972 F.2d 1260, 23 USPQ2d 1780 (Fed. Cir. 1992).

The Office has not established a *prima facie* showing of obviousness. The references do not teach or suggest the features as alleged. The record does not factually support a *prima facie* conclusion of obviousness.

Additionally, even if it were somehow possible (which it isn't) for the references to have disclosed the alleged features, it still would not have been obvious to one having ordinary skill in the art to have combined the references as alleged. The applied references are devoid of any teaching, suggestion, or motivation to modify Furuki in view of Geib and Graef in the manner alleged by the Office.

Furthermore, even if it were somehow possible (which it isn't) to modify Furuki in view of Geib as alleged, and then further modify Furuki/Geib in view of Graef as alleged, the result still would not have produced Appellants' recited invention. Thus, Appellants respectfully submit the 35 U.S.C. § 103(a) rejections are improper and should be withdrawn.

What the Office admits as absent in Furuki

The Action (on page 3, lines 8-11) admits that Furuki does not teach or suggest a "first disk portion" that includes:

- (1) "a high friction arcuate segment" that prevents "the deformation of the leading edge as the note is removed from the note stack"; or
- (2) an "arcuate projecting portion."

Appellants respectfully submit that Furuki lacks more of the recited features than the Action admits, as discussed in more detail later.

What the Office admits as absent in Geib

The Action (on page 4, lines 5-6) admits that Geib (like Furuki) also does not teach or suggest a first disk portion that includes an arcuate "projecting surface" that is "adjacent and transversely disposed from" a "high friction arcuate segment."

Appellants respectfully submit that Geib lacks more of the recited features than the Action admits, as discussed in more detail later.

What the Office alleges that Graef teaches

"a central tread at the outer surface of the wheel is essences to create greater frictional contact at the center area of the segment. Graef furthermore disclose an area which is adjacent and transversely disposed from the high friction central arcuate tread segment. Graef discloses a tread structure which is indented into the outer surface of the feed wheel to create a section of high friction surrounded by smooth area at the peripheral edges" (Action page 4, lines 7-12).

"a rotatable picking member with a centrally adjacent and transversely disposed high friction arcuate segment surrounded by a smooth area at the peripheral edges" (Action page 5, lines 3-5).

"a 'Feed wheel tread' along with a detailed drawing depicting a region of the feed wheel wherein the stated 'tread' is localized in the center vicinity of the feed wheel with no tread configuration around the encompassing border of the 'tread' region" (Action page 11, lines 11-13).



What the Office alleges that Graef suggests

The Office alleges that:

"It would have been obvious to one of ordinary skill in the art at the time of the invention was made to view the structure of Graef in light of the disclosed prior art (above) and glean that a tread like configuration can be disposed at a center of a feed wheel which can be encircled by a non-treaded region. A treaded region as compared to a non-treaded region in the view of the Office will inherently provide higher friction in the treaded region and lower friction in the non-treaded region"

(Action page 11, lines 14-19).

The allegation of obviousness made by the Office

The Action (at page 4, last paragraph) alleges that it would have been obvious to have modified Furuki's copy machine picking member (3) to have included the alleged "high friction arcuate segment" (13) from Geib's drum roller (12). It is noted that the Office makes this allegation even though Geib teaches away from having this same alleged "high friction arcuate segment" (13) on his own picker roller (14).

The Action (at page 5, first paragraph) alleges that it would have been obvious to have further modified Furuki/Geib (in view of the alleged central tread in Graef) to include "a rotatable picking member with a centrally adjacent and transversely disposed high friction arcuate segment surrounded by a smooth area at the peripheral edges."

The Office apparently acknowledges that the result of the purposed combination of features (alleged to be taught or suggested in the references) still would not be enough to produce the recited invention. Therefore, the Action (at page 5, first paragraph) additionally has to allege

that it would have been obvious (with no supporting basis whatsoever) to somehow switch Graef's alleged indented central tread into a protruding central tread "because the protrusions would softly engage the uppermost note 'prior to' the remainder of the roller engaging the sheet thus reducing note deformation due to initial contact."

Apparently (as the rejection is best understood), the Office indicates that after the protruding treads are no longer engaged with the note (due to the roller being rotated), then the next (non-treaded) roller surface portion (which is past the treads) would engage the note to prevent deformation thereof. That is, the rejections are based on two separated and consecutive engagements of the note (see the Action's use of "prior" engagement).

Unfortunately, the Office misreads claim language. For example (claim 2), the projecting surface is adapted to act on the end note as (not "prior to") the end note is being acted upon by the high friction arcuate segment. It follows that the claim rejections are further improper because they are not based on the actual language recited.

#### The Furuki reference

Furuki is non analogous art. Furuki is directed to a copy machine (e.g., col. 1, lines 4-6). Furuki does not relate to an automated banking machine. Nor is there any evidence of record that Furuki's apparatus can pick currency notes, especially from a stack of notes in an automated banking machine.

The record lacks evidence that the alleged picking member (3) in Furuki can pick automated banking machine currency notes. Nor does the record teach that the alleged picking member (3) in Furuki can pick both paper sheets (1) and notes, which would be required by Furuki in order to teach the note picking features attributed thereto by the Office.

The record is absent evidence of *any* prior art picking member that can pick both paper sheets and notes. As is well known, copy machine sheet paper and currency notes differ from each other in at least dimensions, constituents, and surface texture. These structural differences also cause them to be moved differently. For example, a copy machine is designed to move a certain sized sheet in order to operate properly (i.e., without paper jams, etc.). The improper dimension alone would prevent use of currency notes with Furuki's copy machine.

Additionally, Furuki's conventionally uses a supply of blank sheets as the source of paper (1) for the copy machine. One of ordinary skill would not have used currency notes as the source of paper in a copy machine. Nor is printing on a currency note a legal act. Thus, because a federal crime would be required to modify Furuki in the manner proposed by the Office, the claim rejections are further improper.

Also, one skilled in the art would not rely on Furuki's teaching to pick currency notes in an automated banking machine. For example, Furuki's copy machine is designed to conventionally take the top most sheet (1) of paper from a *vertical* stack of paper sheets. Conversely, in an automated banking machine, currency notes are conventionally picked from an end of a *horizontal* (sideways) stack of notes (i.e., notes in a currency cassette). Thus, the design of Furuki's copy machine teaches away from it being able to conventionally pick currency notes. Nor does Furuki teach or suggest picking currency notes.

Furthermore, as acknowledged by the Office, the smooth outer surface of the alleged picking member (3) in Furuki is constant. The Action (at page 2, last paragraph) relies on Furuki at col. 1, line 29 in alleging that this constant surface is "a high friction surface." Applicants traverse the allegation. Furuki does not mention or discuss use of any "high friction" surface.

Rather, the relied upon section in Furuki (col. 1, lines 20-40) indicates that Furuki's sheet picking is based on the rollers (3, 4) having different torque settings.

Appellants respectfully submit that the rejections are based on subject matter attributed to Furuki that Furuki does not teach. That is, the features attributed to Furuki by the Office have no supporting basis in the record. As all of the rejections rely on these unfounded features attributed to Furuki, all of the rejections are improperly based and are without merit.

#### The Geib reference

Geib specifically teaches that the roller (14) is the picker roller (e.g., col. 9, line 38). Geib also teaches that the alleged "high friction arcuate segment" (13) is on the drum roller (12) (col. 9, lines 38-44), not the picker roller (14). Geib's picker roller (14) has a smooth outer surface, like the surface of the pick member 3 in Furuki. That is, both Furuki and Geib teach that a picker roller has a smooth outer surface. Thus, both Furuki and Geib teach away from having a high friction arcuate segment on a picker roller.

Nor is there any evidence to support the allegation (at Action page 3, last paragraph) of a "projecting surface" (13) that can "*prevent deformation* of the leading edge area as the note (20) is acted upon by the high friction arcuate segment" (e.g., claim 2). Where does Geib teach a "projecting surface" of a disk that acts on an end note to prevent deformation of its leading edge while a "transversely disposed" "high friction arcuate segment" of the disk acts on the same end note? Where does Geib even discuss end note deformation prevention? Geib doesn't.

Also, as previously mentioned, the rejections are incorrectly based on an alleged projecting surface acting on an end note "prior to" (instead of as) the end note is being acted upon by a high friction arcuate segment.

### The Graef reference

Graef is a design patent. It is to an ornamental design and has no disclosed functional benefits. The Office has not explained how a non functional ornamental design can be used to render a functional apparatus obvious. Furthermore, except for the broad feed wheel tread design shown, all features attributed to Graef by the Office are pure speculation.

For example, where does Graef teach "greater frictional contact at the center area of the segment" and a "transversely disposed high friction arcuate segment surrounded by a smooth area at the peripheral edges" as alleged by the Office (at Action page 4, lines 7-12)? Where does the Graef design patent teach or suggest any material properties of the ornamental design? It doesn't. Nor can any area be identified as a "high" friction area or a "low" friction area.

As the record shows, Appellants had requested that the Office send them a copy of a marked up version of the Graef reference showing exactly where the high and low friction areas in the Graef figures were located. Appellants had also requested that the Office specifically point out to them the page and line numbers in the Graef reference that teaches these alleged areas as being high and low friction areas. The Office has not met Appellants' requests. Nor can it.

Appellants again respectfully disagree with the Office's statement (at Action page 11, lines 14-19) that a "treaded region as compared to a non-treaded region in the view of the Office will inherently provide higher friction in the treaded region and lower friction in the non-treaded region." As the Appellants had previously pointed out, if the Office's "view" was scientifically accurate (which it isn't), then why don't dragsters (e.g., for a quarter mile race) use treaded tires instead of slicks? Also, the Office still has not explained how a tread in an all plastic roller would provide any greater friction. To the extent that the Examiner continues to rely on personal

knowledge to support the allegation that a treaded region will always have higher friction than a non-treaded region, Applicants respectfully request an affidavit according to the provisions of 37 C.F.R. 1.104(d)(2).

The Office's tread/friction reasoning, on which all the rejections are based, is without merit. It follows that the rejections, which are based on the faulty reasoning, are without merit.

#### Review of the Furuki, Geib, and Graef teachings

In review, Furuki is non analogous art (and teaches away from the alleged modification thereto). Both Furuki and Geib teach that pick rollers have a smooth outer surface (and both teach away from the alleged modification to Furuki). Graef shows a non functional design for a feed wheel (and not the many features attributed thereto by the Office). As a result, the combined references at best would teach a pick roller having a smooth outer surface.

#### The rejections are improperly based

Appellants respectfully submit that the Office attributes subject matter to the references that references themselves do not teach. The Office then relies on this misconstrued interpretation of references for the claim rejections. Thus, the rejections are improperly based.

Appellants respectfully submit that the rejections are also without any prior art supporting basis. For example, there is no teaching, suggestion, or motivation of record to switch Graef's alleged *indented* central tread into a *protruding* central tread, as proposed by the Office (e.g., Action page 5, lines 5-9). The Office also misconstrues what constitutes a "tread." For example, by conventional definition a "tread" of an auto tire is the part that bears on the road. Thus, Office's concept (and reliance on) switching Graef's "tread" from indented to protruding makes no sense (which renders the rejection improper). Thus, not only is the alleged switch

unsupported in the prior art of record, but it is also unreasonable and without merit. The record is devoid of the requisite proper motivation for reference modification and claim rejection.

The Office has also failed to document its evidence for rejection on the record, which is a mandatory requirement for a legally valid rejection. At best, the rejections are based on speculation. However, evidence of record must teach or suggest the recited features. Assertions not based on evidence in the record lack substantial evidence support. *In re Zurko*, supra. A determination of patentability must be based on evidence in the record. *In re Lee*, supra. It is respectfully submitted that the Action from which this appeal is taken does not meet these legal burdens.

Furthermore, Appellants respectfully submit that even with all of the allegations made by the Office, a *prima facie* case of obviousness still has not been established. For example, even if Graef had a protruding central tread, such a teaching still would not render obvious the recited invention, as discussed in more detail later for each specific claim. It follows that all of the rejections are improperly based.

Appellants respectfully submit that they are not required to prove patentability. Rather, it is the Office which must meet its burden of establishing a *prima facie* case of obviousness under the law. If the Office does not establish a *prima facie* case of obviousness (which is the current situation), then the Appellants are under no obligation to submit evidence of nonobviousness. MPEP § 2142. Nor can Appellants be expected to directly rebut reasons for rejection which have never been made of record by the Office.

## **Claim 2**

The rejection of claim 2 (at Action pages 2-5) is not understandable. The rejection is devoid of any prior art teaching, suggestion, or motivation for combining the alleged features of the references so as to produce the recited invention. Nor does the Office explain how Furuki could be structurally modified in the manner alleged. Furthermore, even if the alleged modification were somehow possible (which it isn't), the result thereof would destroy the disclosed and desired utility and operability of the Furuki teaching. Nor would the alleged modification be enabling to one of ordinary skill in the art. *In re Kumar*, Case No. 04-1074 Fed. Cir. August 15, 2005.

For reasons already discussed, the references do not teach or suggest the recited rotatable note picking member adapted to pick notes from a stack of notes in an automated banking machine, where the picking member includes a first disk portion. The references do not teach or suggest a "disk portion" that includes both a "high friction arcuate segment" and an "arcuate projecting portion." Nor do the references teach or suggest that the "arcuate projecting portion" includes a "projecting surface" that is located "adjacent to" yet "transversely disposed from" the "high friction arcuate segment."

As previously discussed, by conventional definition the "tread" does the bearing. Thus, if the outer surface of Graef's "tread" bears on a sheet at the same radial elevation as the area surrounding the "tread," then where is the recited arcuate "projecting" portion in Graef?

Nor do the references teach or suggest that the "projecting surface" is adapted to act on a leading edge area of an end note to "prevent deformation" thereof as the end note is acted upon by the "high friction arcuate segment." Where do the references teach or suggest a picking



member disk portion with the structural ability to simultaneously act on an end note with both a "high friction arcuate segment" and an "arcuate projecting portion" in a manner that prevents deformation of the leading edge area of the end note?

For the many reasons previously discussed, Appellants respectfully submit that the Office has not established a *prima facie* case of obviousness. Nor would it have been obvious to one having ordinary skill in the art to have modified Furuki as alleged to have produced the recited invention.

### **Claim 3**

Appellants respectfully submit that the Action has not properly set forth a *Graham v. John Deere Co.* analysis. As a result, the Action procedurally fails to establish a *prima facie* case of obviousness. As best understood, the rejection appears to be based solely on hindsight reconstruction of Appellants' claimed invention, which is legally impermissible and does not constitute a valid basis for the rejection. *In re Fritch*, supra. The rejection is devoid of any prior art teaching, suggestion, or motivation for combining the alleged features of the references so as to produce the recited invention.

Nor does the Office explain how Furuki could be structurally modified as alleged. Modification of Furuki's explicit teaching in the manner alleged by the Office would destroy the disclosed and desired utility and operability of the Furuki teaching. That is, the alleged modification to Furuki would render the reference inoperable for its intended and desired purpose.

Nor would the alleged combination be enabling to one of ordinary skill in the art. A rejection based on an alleged combination of features in multiple references that clearly does not

produce an enabled form of what is specifically recited in the claim, is not a proper rejection. *In re Kumar*, supra.

For reasons of brevity, Appellants' previous remarks regarding the patentability of claim 2 are incorporated herein by reference. The references, taken alone or in combination, also do not teach or suggest a picking member disk portion that includes both a "high friction arcuate segment" and an "arcuate projecting surface," especially where the arcuate projecting surface is "adjacent to," "transversely disposed from," and "extends radially outward" beyond the high friction arcuate segment. If none of the references have an (arcuate) picking disk surface that projects radially outward further than a transversely adjacent high friction segment of the disk (which is the situation), then neither can a combination of the references produce the feature.

As previously discussed, the Action (on page 3, lines 8-11) admits that Furuki does not teach or suggest "a high friction arcuate segment" or an "arcuate projecting portion."

As previously discussed, the Action (on page 4, lines 5-6) also admits that Geib does not teach or suggest a "projecting surface" that is "adjacent and transversely disposed from" a "high friction arcuate segment."

As previously discussed, Graef is a design patent. All features attributed thereto by the Office are pure speculation. It follows that Graef also does not teach or suggest a picking member disk that has an arcuate projecting surface adjacent to, transversely disposed from, and extending radially outward beyond the disk's high friction arcuate segment.

Nor do the references teach or suggest the picking member disk also having the structural ability to act on an end note to prevent deformation of the leading edge area of the end note. The Office has not established a *prima facie* case of obviousness. Nor would it have been obvious to

one having ordinary skill in the art to have modified Furuki as alleged to have produced the recited invention.

#### **Claim 4**

The rejection (on Action page 6) appears to conflict with the rejection of claim 2. For example, in the claim 4 rejection the Office relies on the allegation that Graef has a peripheral area that extends outward from the *central* tread. Conversely, in the claim 2 rejection (on Action page 5, lines 6-7) the Office relies on the allegation that Graef's central tread extends (protrudes) outward from the *peripheral* (surrounding) surface. It follows that the rejection is improper.

As best understood, the rejection is based on the allegations that Graef discloses (1) a peripheral area (i.e., the recited arcuate projecting surface) that extends radially outward from a central tread (i.e., the recited high friction arcuate segment); and (2) the peripheral area has an arc that is less than an arc of the central tread.

As previously discussed, there is no evidence of record to support the allegation that Graef has an arcuate projecting surface that is adjacent to and transversely disposed from a high friction arcuate segment.

Additionally, even if it were somehow possible (for sake of argument) for Graef to teach an arcuate projecting surface and a transversely disposed high friction arcuate segment, there still would not be any evidence of record to support the allegation of an arcuate projecting surface extending through "less" of an arc than a high friction arcuate segment. Where does Graef teach or suggest the alleged difference in arcs? The Office has not established a *prima facie* case of obviousness.

### **Claim 5**

Claim 5 depends from claim 4/2. The references further do not teach or suggest that where "the high friction arcuate segment first engages the end note" the adjacent projecting surface extends radially outward beyond the high friction arcuate segment. Where do the references teach or suggest the recited features or the recited relationships? The Office has not established a *prima facie* case of obviousness.

### **Claim 6**

Claim 6 depends from claim 5/4/2. The references further do not teach or suggest a high friction arcuate segment resilient band extending in a circumferential recess, and a projecting surface bounds the recess. The Office alleges that it would be obvious to mount a high friction arcuate segment onto a recess. There is no supporting basis for the allegation. Furthermore, the claim recites that a high friction arcuate segment "extends in the recess" (not on, as apparently alleged by the Office). The Office has not established a *prima facie* case of obviousness.

### **Claim 7**

Claim 7 depends from claim 6/5/4/2. The references further do not teach or suggest a low friction arcuate segment that includes a projecting surface. As previously discussed, Graef does not discuss or even mention low friction and high friction segments. Thus, at least one alleged feature on which the rejection is based is not valid. The Office has not established a *prima facie* case of obviousness.

### **Claim 8**

Claim 8 depends from claim 6/5/4/2. The rejection further lacks evidence that Graef teaches or suggests the alleged high friction angled tread. The Office has not established a *prima facie* case of obviousness.

### **Claim 9**

Claim 9 depends from claim 6/5/4/2. As previously discussed, the references do not teach or suggest a resilient band that "extends in the recess" (claim 6). The rejection further lacks evidence that Graef teaches or suggests the alleged transversely wider resilient band. The Office has not established a *prima facie* case of obviousness.

### **Claim 10**

Claim 10 depends from claim 5/4/2. The exemplary embodiment of Figure 18 shows first and second high friction outboard portions (234, 244) transversely disposed from the first disk portion (218) and transversely aligned with a portion (262) of the high friction arcuate segment (228). The Office's reliance on Graef is misguided. The references, taken alone or in combination, do not teach or suggest the recited outboard portions or the relationships therewith. The Office has not established a *prima facie* case of obviousness.

### **Claim 11**

Claim 11 depends from claim 10/5/4/2. The references further do not teach or suggest the recited transverse alignment. Where does the Action address the recited feature? The Office has not established a *prima facie* case of obviousness.

### **Claim 15**

Claim 15 depends from claim 11/10/5/4/2. As previously discussed, the references do not teach or suggest the recited first disk portion. It follows that the references cannot teach or suggest the first disk portion supported on a shaft. The Office has not established a *prima facie* case of obviousness.

### **Claim 16**

Claim 16 depends from claim 15/11/10/5/4/2. The Action is silent as to where the references teach or suggest each of a first disk portion, a first outboard disk portion, and a second outboard disk portion supported on the same shaft. Nor do the references teach or suggest the recited features and relationships. Again, a *prima facie* case of obviousness has not been established.

### **Claim 17**

Claim 17 depends from claim 16/15/11/10/5/4/2. The Action is silent as to where the references teach or suggest the recited relationships between the outboard high friction portions and the outboard disk portions. The Office has not established a *prima facie* case of obviousness.

### **Claim 23**

As best understood, the rejection relies on Furuki for a stripping member (4) (Action page 2). The Action also relies on Furuki for a picking member (3) that is adapted to work in conjunction with the stripping member (4).

However, nowhere does Furuki teach or suggest a stripping member (4) oppositely arranged to work with a picking member (3) such that a projecting surface of the picking member is "disposed transversely from the stripping member." In Furuki, an opposed picking member (3)

does not extend *transversely* outside of the stripping member (4). For example, note Furuki's Figures 1 and 8. Nor does Furuki have any reason to have a picking member (3), which works with and opposite the relied upon stripping member (4), with a portion thereof that transversely extends outside of the stripping member (4) in the manner recited.

The Office has not established a *prima facie* case of obviousness. It follows that the combination of references could not have produced the recited invention.

#### **Claim 24**

Claim 24 depends from claim 23/2. For reasons previously discussed (claim 23), nor does Furuki's picking member (3) in an operative position, have a "projecting surface" that is positioned "transversely" disposed of the stripping member (4). The Office has not established a *prima facie* case of obviousness. It follows that the proposed combination of references could not have produced the recited invention.

#### **Claim 35**

For reasons of brevity, Appellants' previous remarks regarding the patentability of claim 3 are incorporated herein by reference. For the many reasons already discussed, the references do not render claim 35 obvious. Additional remarks against the rejection follow.

The references, taken alone or in combination, further do not teach or suggest a section of a picking disk's outer surface having axially adjacent "low" friction and "high" friction arcuate surfaces, where the low friction surface extends radially outward further than the high friction surface. The Office has not established a *prima facie* case of obviousness. Nor would it have been obvious to one having ordinary skill in the art to have modified Furuki as alleged to have produced the recited invention.

### **Claim 36**

For reasons of brevity, Appellants' previous remarks regarding the patentability of claims 3 and 35 are incorporated herein by reference. For the many reasons already discussed, the references do not render claim 36 obvious. Additional remarks against the rejection follow.

The references, taken alone or in combination, further do not teach or suggest an arcuate projecting surface that is adjacent to, transversely disposed from, and extends along only a portion of the high friction surface. The Office has not established a *prima facie* case of obviousness. Nor would it have been obvious to one having ordinary skill in the art to have modified Furuki as alleged to have produced the recited invention.

### **Claim 37**

Claim 37 depends from claim 36. An exemplary embodiment (e.g., Figures 18 and 19) shows an outboard high friction segment (234 or 244) transversely aligned with a portion (262) of the high friction surface (228) but not transversely aligned with the projecting surface (258). The Action is silent as to where the recited features are found in the references. Nor do the references teach or suggest both the positional alignment and non alignment of the high friction segment as recited. The Office has not established a *prima facie* case of obviousness.

### **Claim 38**

For reasons of brevity, Appellants' previous remarks regarding the patentability of claim 3 are incorporated herein by reference. For the many reasons already discussed, the references do not render claim 38 obvious.

Appellants have already shown (in their claim 3 remarks) that the references, taken alone or in combination, do not teach or suggest an arcuate projecting surface that is adjacent to,



transversely disposed from, and extends radially outward beyond the high friction arcuate segment. The Office has not established a *prima facie* case of obviousness.

If none of the references have an arcuate picking disk surface that projects radially outward further than an adjacent high friction segment of the disk (which is the situation), then neither can a combination of the references produce the recited feature. Thus, it would not have been obvious to one having ordinary skill in the art to have modified Furuki as alleged to have produced the recited invention.

### **Claim 39**

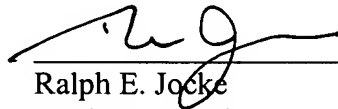
For reasons of brevity, Appellants' previous remarks regarding the patentability of claims 35 and 36 are incorporated herein by reference. For the many reasons already discussed, the references do not render claim 39 obvious.

As previously discussed (claim 35 remarks), the combined references do not teach or suggest a section of a picking disk's outer surface having both low friction and high friction arcuate surfaces. As previously discussed (claim 36 remarks), the combined references also do not teach or suggest an arcuate surface extending along only a portion of a high friction arcuate surface. It follows that the references, taken alone or in combination, cannot teach or suggest a section of a picking disk's outer surface having both low friction and high friction arcuate surfaces, where the low friction arcuate surface extends along only a portion of the high friction arcuate surface. The Office has not established a *prima facie* case of obviousness. Nor would it have been obvious to one having ordinary skill in the art to have modified Furuki as alleged to have produced the recited invention.

## CONCLUSION

Each of Appellants' pending claims specifically recites features and relationships that are neither disclosed nor suggested in any of the applied prior art. Furthermore, the applied prior art is devoid of any teaching, suggestion, or motivation for combining features thereof so as to produce the recited invention. For these reasons it is respectfully submitted that all the pending claims are allowable.

Respectfully submitted,



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## CLAIMS APPENDIX

2. Apparatus comprising:

a rotatable picking member adapted to work in conjunction with a stripping member to pick notes generally one at a time from a stack of notes in an automated banking machine,

wherein the picking member includes a first disk portion,

wherein the first disk portion includes a high friction arcuate segment,

wherein the high friction arcuate segment is adapted to act on an end note bounding the stack,

wherein the first disk portion includes an arcuate projecting portion,

wherein the arcuate projecting portion includes a projecting surface adjacent to and transversely disposed from the high friction arcuate segment,

wherein the projecting surface is adapted to act on a leading edge area of the end note to prevent deformation of the leading edge area as the end note is acted upon by the high friction arcuate segment.

3. Apparatus comprising:

a rotatable picking member adapted to work in conjunction with a stripping member to pick notes generally one at a time from a stack of notes in an automated banking machine,

wherein the picking member includes a first disk portion,

wherein the first disk portion includes a high friction arcuate segment,

wherein the high friction arcuate segment is adapted to act on an end note bounding the stack,

wherein the picking member includes an arcuate projecting surface adjacent to and transversely disposed from the high friction arcuate segment,

wherein the arcuate projecting surface extends radially outward relative to the first disk portion beyond the high friction arcuate segment,

wherein the arcuate projecting surface is adapted to act on a leading edge area of the end note to prevent deformation of the leading edge area as the end note is acted upon by the high friction arcuate segment.

4. The apparatus according to claim 2 wherein the projecting surface extends radially outward relative to the high friction arcuate segment through an arc on the first disk portion that is less than an arc through which the high friction arcuate segment extends.
5. The apparatus according to claim 4 wherein the high friction arcuate segment is bounded by a forward boundary, wherein in separating an end note from the stack a leading area adjacent the forward boundary of the high friction arcuate segment first engages the end note, and wherein the projecting surface extends radially outward beyond the high friction arcuate segment adjacent the leading area.
6. The apparatus according to claim 5 wherein the first disk portion includes a circumferential recess, and wherein a circumferential resilient band extends in the recess, and the resilient band includes the high friction arcuate segment, and wherein the projecting surface bounds the recess adjacent the leading area.
7. The apparatus according to claim 6 wherein the first disk portion includes a low friction arcuate segment, and wherein the low friction arcuate segment includes a projecting surface.

8. The apparatus according to claim 6 wherein the high friction arcuate segment in the leading area includes angled tread.
9. The apparatus according to claim 6 wherein the resilient band is transversely wider in an area comprising the high friction arcuate segment relative to at least one other area of the resilient band.
10. The apparatus according to claim 5 wherein the picking member further comprises a first outboard high friction portion disposed on a first transverse side of the first disk portion, wherein the picking member further comprises a second outboard high friction portion disposed on a second side of the first disk portion, wherein the second side is opposed of the first transverse side, wherein the first and second outboard high friction portions are transversely aligned with at least a portion of the high friction arcuate segment, and wherein the first and second outboard high friction portions are adapted to engage and move the end note.
11. The apparatus according to claim 10 wherein the first and second outboard high friction portions are transversely aligned with a portion of the high friction arcuate segment other than the leading area of the high friction arcuate segment.
15. The apparatus according to claim 11 wherein the picking member includes a central shaft, wherein the first disk portion is supported on the shaft.

16. The apparatus according to claim 15 wherein the picking member further includes a first outboard disk portion supported on the shaft and transversely disposed on a first side of the first disk portion, and wherein the picking member further includes a second outboard disk portion supported on the shaft and transversely disposed on a second side of the first disk portion opposed of the first side.
17. The apparatus according to claim 16 wherein the first outboard high friction portion is supported on the first outboard disk portion, and wherein the second outboard high friction portion is supported on the second outboard disk portion.
23. The apparatus according to claim 2 and further comprising a stripping member in generally opposed adjacent relation with the picking member, and wherein the projecting surface is disposed transversely from the stripping member.
24. The apparatus according to claim 23 wherein in an operative position of the picking member, the arcuate projecting surface is transversely disposed of the stripping member.
35. Apparatus comprising:
- an automated banking machine picking disk,

wherein the picking disk comprises an axis,

wherein the picking disk is rotatable about the axis,

wherein the picking disk is adapted to work in conjunction with a stripping member to pick currency notes generally one at a time from a stack of currency notes in an automated banking machine, wherein the picking disk is operative to cause a leading edge area on an end note bounding the stack to move,

wherein the picking disk includes an axially extending and circumferentially extending outer surface section,

wherein the outer surface section includes a high friction portion adjacent to a low friction portion in a direction parallel to the axis,

wherein the high friction portion comprises a high friction arcuate surface,

wherein the high friction arcuate surface is adapted to act on the end note,

wherein the low friction portion comprises a low friction arcuate surface,



wherein the low friction arcuate surface extends radially outward relative to the axis further than the high friction arcuate surface.

36. Apparatus comprising:

a picking member adapted to work in conjunction with a stripping member to pick sheets generally one at a time from a stack of sheets in an automated banking machine, wherein the picking member is operative to cause a leading edge area on an end note bounding the stack to move,

wherein the picking member includes an arcuate high friction surface,

wherein the high friction surface extends a distance on the picking member along a picking direction from a forward edge bounding the high friction surface,

wherein the picking member includes at least one arcuate projecting surface,

wherein the at least one arcuate projecting surface is adjacent to and transversely disposed from the high friction surface,

wherein the at least one arcuate projecting surface extends adjacent the forward edge and extends along the picking direction only a portion of the distance that the high friction surface extends on the picking member,

wherein the at least one arcuate projecting surface is operative to prevent deformation in the leading edge area as the leading edge area moves.

37. The apparatus according to claim 36 and further comprising at least one outboard high friction segment transversely disposed on the picking member from the high friction surface and wherein the at least one outboard high friction segment is transversely aligned with a portion of the high friction surface and is not transversely aligned with the at least one projecting surface.

38. Apparatus comprising:

a rotatable picking member adapted to work in conjunction with a stripping member to pick notes generally one at a time from a stack of notes in an automated banking machine,

wherein the picking member includes a first disk portion,

wherein the first disk portion includes a high friction arcuate segment,

wherein the high friction arcuate segment is adapted to act on an end note bounding the stack,

wherein the picking member includes an arcuate projecting surface adjacent to and transversely disposed from the high friction arcuate segment,

wherein the projecting surface extends radially outward relative to the first disk portion beyond the high friction arcuate segment,

wherein the projecting surface is adapted to act on a leading edge area of the end note as the end note is acted upon by the high friction arcuate segment.

39. Apparatus comprising:

an automated banking machine picking disk,

wherein the picking disk comprises an axis,

wherein the picking disk is rotatable about the axis,

wherein the picking disk is adapted to work in conjunction with a stripping member to pick currency notes generally one at a time from a stack of currency notes in an automated banking machine, wherein the picking disk is operative to cause a leading edge area on an end note bounding the stack to move,

wherein the picking disk includes an axially extending and circumferentially extending outer surface section,

wherein the outer surface section includes a high friction portion adjacent to a low friction portion in a direction parallel to the axis,

wherein the high friction portion comprises a high friction arcuate surface,

wherein the high friction arcuate surface is adapted to act on the end note,

wherein the low friction portion comprises a low friction arcuate surface,

wherein the low friction arcuate surface extends circumferentially along only a portion of the high friction arcuate surface.



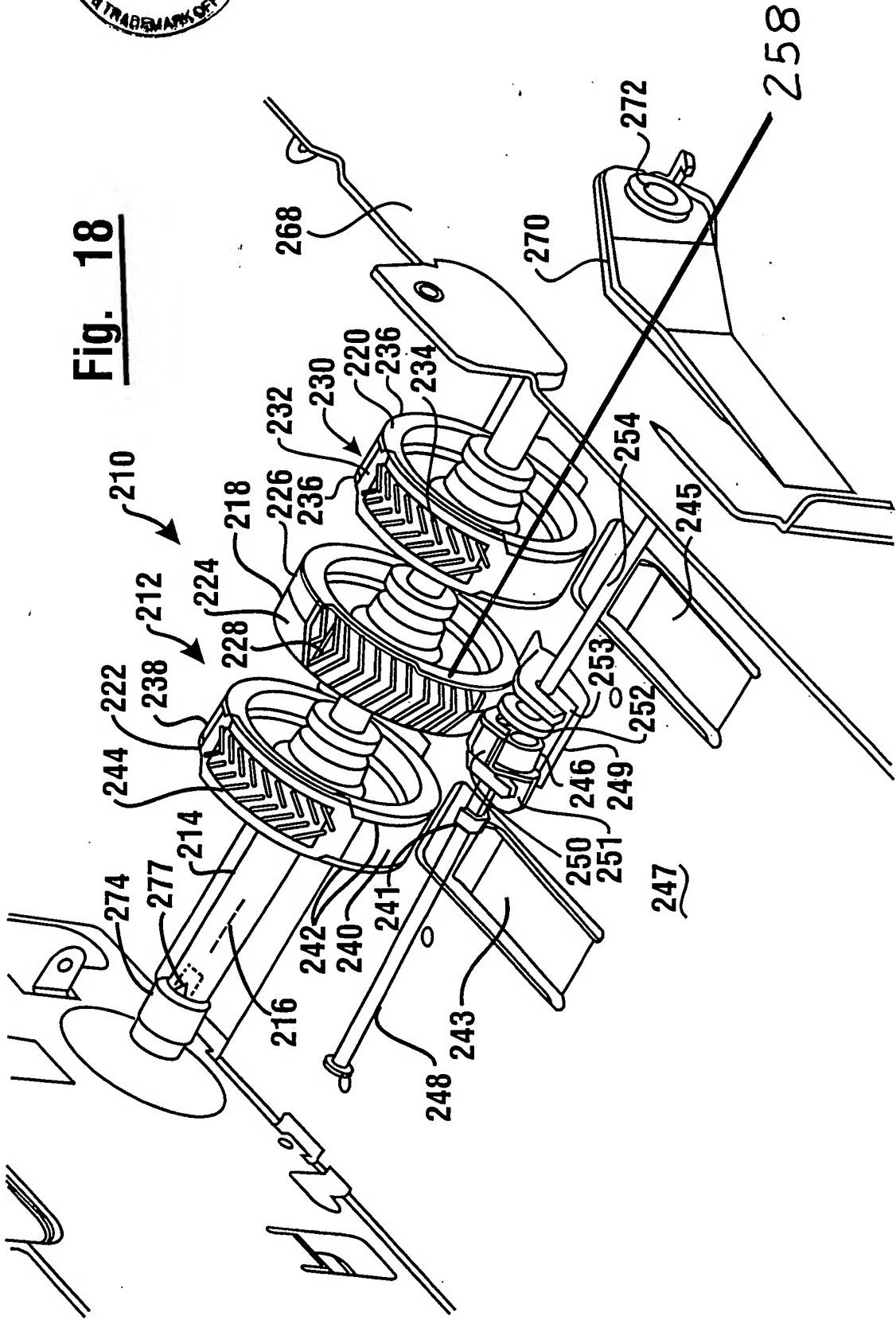
(ix)

## EVIDENCE APPENDIX

Included herein is a marked-up version of Figure 18 having the arcuate projecting portion labeled as reference numeral 258 (in correspondence with its labeling in Figure 19).



**Fig. 18**



(x)

**RELATED PROCEEDINGS APPENDIX**

(None)